

It's Just Semantics

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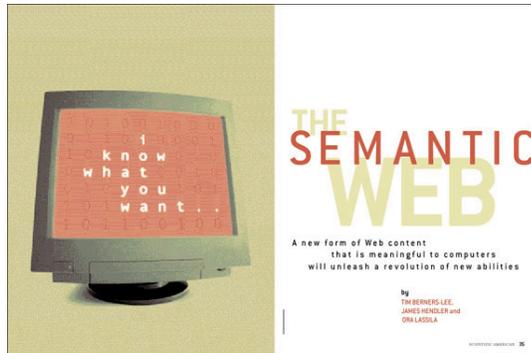
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What's Wrong with the World Wide Web?

- **Built for *humans*, not for *machines***
 - consequently, *automating* anything is rather difficult
- **Possible solution: web content with formal semantics**
 - this trend is called "The Semantic Web"
 - lively research area (conferences, workshops, journal, and even emerging standards)



Key Elements of the Semantic Web

- **Transforming the web architecture**
 - from “indiscriminate pointing” to “links with meaning”
- **Ontologies & Reasoning**
 - automated systems are able to discover information & services and decide whether these meet their needs
 - “serendipitous interoperability”
- **Emerging languages & standards**
 - (forget XML – it is not *really* relevant, sorry)
 - Resource Description Framework (RDF, from W3C)
 - DAML+OIL (from DARPA)
 - Ontology Web Language (OWL, from W3C, under construction)
- **“Share the Meaning”**



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Will the Semantic Web Happen?

- **Business models - do they exist?**
 - who is going to define and publish the ontologies?
 - advertising no longer a viable business model
 - limited domains (e.g., bioinformatics) and limited deployment (e.g., intranets) show some promise
 - (please come talk to me if you have a good business idea)
- **Web Services**
 - hyped up as “the next big thing”
 - my prediction: Web Services will not succeed without the techniques of the Semantic Web
 - “Tower of Babble” phenomenon (Genesis 11)
- **“It smacks of artificial intelligence...”**
 - (from a recent article on CNET)
 - AI is useful for the Semantic Web, but we can start deployment without it

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